

**REMARKS**

Reconsideration of the application is respectfully requested.

1. The Examiner has previously allowed claims 1-5 in the Office Action dated May 9, 2008. However, inconsistent with the previous Office Action, the Examiner has now rejected claims 1-5 over 35 U.S.C. 103(a) as being unpatentable over Leuchs in view of Marsh and Barton. In particular, the Examiner has indicated that Leuchs (Figure 1) discloses a single electrical conducting cable comprising a conductive core (1), a single gas impermeable sheath (2) comprising an oxidation resistant alloy (steel) and having an inner surface and an outer surface. The Examiner also indicated that Leuchs discloses the sheath being flexible and comprising a corrugated metal resistant to oxidation. The Examiner further indicated that while Leuchs does not disclose terminal lugs being one-piece, comprising an oxidation resistant alloy and the outer surface of the sheath being hermetically sealed to each of the lugs using a heat resistant braze, Marsh does disclose a terminal lug which is a solid one-piece terminal lug comprising an oxidation resistant alloy and the outer surface of the sheath being hermetically sealed to each of the lugs by brazing. The Examiner indicates that Barton discloses hermetically sealing a lug to a cable sheath by heat resistant braze.

Leuchs does not teach a sheath comprising steel or an "oxidation resistant alloy" as taught in claim 1 of the present invention. Leuchs generally mentions copper, aluminum, steel or lead in reference to typical electrical cables in the background of the invention (col. 1, line 27), but explicitly states that the metallic sheath (2) is "preferably formed of aluminum" (col. 2, line 57). It is understood by one skilled in the art that aluminum is not an alloy. In contrast, in the present invention, the components are formed of "oxidation resistant alloy" materials suitable for high temperature applications. The present invention specifically teaches that aluminum may be used only in small quantities and not in its pure form due to its low melting temperature; it does not advocate use of aluminum. Leuchs has no teachings related to oxidation resistant alloys, or solving the issue of thermal degradation of its cable.

Barton is not directed towards and does not teach connections being hermetically sealed using a "heat resistant braze" as taught in claim 1 of the present invention. The present invention teaches that a hermetic seal from a heat resistant braze is formed using a paste of Ni-braze alloy BNi-3, heating in a vacuum furnace to a brazing temperature of 1040 °C and held for an hour before cooling (see paragraph [0017] of the present application]. In contrast Barton does not teach brazing in such high temperatures. It specifically teaches that the solder preferably becomes "liquid or molten" at approximately 576 °F. Much lower than 1040 °C. Further, one skilled in the art would not understand that taught in Barton as being hermetically sealed using a "heat resistant braze".

Further, Leuchs does not teach a sheath as comprising a corrugated metal resistant to oxidation as taught in claim 4 of the present invention. Leuchs relates to an electrical cable (10) comprising a core assembly (1) formed of a plurality of insulated conductors (4), and a metallic sheath (2) comprised preferably of aluminum and concentrically positioned about the core assembly (1) (col. 2, lines 47-56). A filler material (3) of an expandable thermoplastic material "is dispersed within the spaces between the inner surface of the metallic sheath (2) and the outer surfaces of the insulated conductors (4), including the intermediate spaces between such conductors" (col. 2, lines 57-68 to col. 3, lines 1-8; Figures 1-3). In contrast to teaching a corrugated metal resistant to oxidation, Leuchs discloses that when subjected to elevated temperatures, the filler material expands as it emits extinguishing oxides which combine with at least a portion of the acids and gases resulting in insulation decomposition. Leuchs specifically states that the electrical cable is only initially protected by the metallic sheath and that upon continued exposure to high temperatures, the cable is subject to the "eventuality" of insulation decomposition and bursting of the metallic sheath. This is an admission of failure of the cable to withstand oxidation.

For these reasons, it is respectfully submitted that independent claim 1 and dependant claims 2-5 are not obvious in light of Leuchs having regard to Barton and Marshall. It is respectfully submitted that these claims should accordingly be allowed.

2. The Examiner has previously indicated in the Office Action dated May 9, 2008 that claims 9 and 10 are objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all the limitations of the base claim and intervening claims. Claim 9

was cancelled and independent (base) claim 6 was amended to incorporate the limitations of claim 9. Claim 10 has been amended to depend from claim 6. However, inconsistent with the previous Office Action, the Examiner has now rejected claims 6-8 and 10 over 35 U.S.C. 103(a) as being unpatentable over Leuchs in view of Marsh. In particular, the Examiner has indicated that Leuchs discloses an electrical conducting cable consisting essentially of a conductive core, a single gas impermeable sheath having an inner surface and an outer surface, wherein the sheath is flexible and comprises a corrugated metal resistant to oxidation. The Examiner also indicated that Marsh discloses a terminal lug which is a solid one-piece terminal lug with the outer surface of the sheath being hermetically sealed to each of the lugs by brazing.

For the same reasons above, Leuchs does not teach a sheath as comprising a corrugated metal resistant to oxidation as taught in Claim 6 of the present invention.

For these reasons, it is respectfully submitted that independent claim 6 and dependant claims 7-8 and 10 are not obvious in light of Leuchs having regard to Marshall. It is respectfully submitted that these claims should accordingly be allowed.

## CONCLUSION

In view of the foregoing remarks and amendments, it is respectfully submitted that this application is in condition for allowance and allowance thereof is respectfully requested.

Respectfully submitted,

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